

**REMARKS**

Applicants thank the Examiner for acknowledging the claim for priority under 35 U.S.C. § 119. Applicants will submit a certified copy of the priority document as soon as possible.

Applicants thank the Examiner for indicating that the Formal Drawings filed April 1, 2004 are accepted.

**Status of the Application**

Claims 1-18 are all the claims pending in the Application, as claims 5-18 are hereby added. Claims 1-4 stand rejected.

**Claim Objections**

The Examiner has objected to claim 3 due to a typographical error. The typographical error noted by the Examiner (and a similar error in independent claim 4) is corrected by amendment herein. This correction is merely editorial and clarifying in nature, and therefore does not give rise to any estoppel. Thus, withdrawal of the objection is respectfully requested.

**Obviousness Rejection**

The Examiner has rejected, under 35 U.S.C. § 103(a): (1) claims 1 and 2 as being unpatentable over *Thominet* (US 6,565,247; hereinafter “*Thominet*”) in view of *Ueda* (US 6,617,615; hereinafter “*Ueda*”); (2) claim 3 as being unpatentable over *Thominet* and *Ueda* in further view of *Komoto* (US 5,753,940; hereinafter “*Komoto*”); and (3) claim 4 as being unpatentable over *Komoto*. These rejections are respectfully traversed.

Independent Claim 1

The Examiner alleges that many of the features recited in independent claim 1 are disclosed by FIGS. 1 and 4 of *Thominet*, but concedes that *Thominet* fails to teach or suggest a “linear type LED.” Thus, the Examiner cites *Ueda*, and alleges: (1) that *Ueda* discloses “a linear semiconductor light-emitting element” that is equivalent to such a feature; and (2) that one of ordinary skill in the art at the time of the invention (hereinafter “one of skill”) would have been motivated to modify *Thominet*’s matrix of semiconductor sources 10 to include the “linear semiconductor light-emitting element” of *Ueda* “in order to obtain [*sic* - a] wider illuminated area” (O.A., p. 3).

Applicants respectfully disagree, and submit that one of skill would not have been motivated to modify *Thominet* in view of *Ueda* as the Examiner has alleged, as it has long been held that the Examiner must “show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for a combination in the manner claimed.” *In re Rouffet*, 47 USPQ2d 1453 (Fed.Cir. 1998). The mere fact that references can be “combined or modified does not render the resultant combination [or modification] obvious unless the prior art also suggests the desirability of the combination [or modification].” *In re Mills*, 916 F.2d 680 (Fed.Cir. 1990); MPEP §2143.01.

In this instance, *Thominet* discloses (see FIG. 1) an illumination device for a vehicle (*i.e.*, a headlamp) which utilizes various regions 22, 24, 26, 28 (see FIG. 2) of semiconductor light sources 10 to form various output patterns of light, such as a concentric illumination for long distances and a wide illumination for low speeds (col. 1, lines 50-65).

In contrast, *Ueda* is directed toward a photo-encoder (col. 1, lines 10-20), such as that disclosed in FIG. 11, which uses a fixed output light 20 for emitting light through slits a-N in measuring plate 11 as it moves, and light receiving part 12 for receiving the light through slits a-N to determine the speed of measuring plate 11. In order to eliminate a complex optical system used to focus the fixed output light into precise spot light sources (col. 2, lines 2-5), *Ueda* discloses a cover body 50d with slit 50a formed over LED element 1x to provide the required amount of light (FIGS. 1, 2; col. 4, line 33 - col. 5, line 17).

Thus, *Ueda* is directed toward solving a particular problem (*i.e.*, the elimination of a complex optical system to provide precise spot light sources) that is not present in *Thominet*. *Thominet* does not have a similarly complex optical system that needs to be replaced, but rather is directed to illumination of a large area by many light sources, such as shown in FIG. 4. Further, Applicants respectfully submit that there is no teaching or suggestion in either reference, and the Examiner has not explained, how the interposition of a feature similar to *Ueda*'s cover body 50d over any of the *Thominet* semiconductor light sources 10 would provide any benefit for the *Thominet* system. Rather, the Examiner's alleged reason supporting the proffered modification of *Thominet* (*i.e.* "to obtain [*sic* - a] wider illuminated area") is respectfully submitted to be unavailing, as *Ueda* discloses a precise spot beam, not a wide illumination area similarly to *Thominet*. In fact, Applicants respectfully submit that the Examiner has not explained even how the function of *Thominet* could still be performed if modified according to the current rejection (*e.g.*, why spot beams formed by such a configuration would still be appropriate for use in a headlight application).

Additionally, even if it were possible to modify *Thominet* in view of *Ueda* as the Examiner has alleged, Applicants respectfully submit that neither *Thominet* nor *Ueda* (nor

any combination thereof) teaches or suggests “an optical device for forming at least a part of a cut line” by “projecting a shape of said light emitting area.”

Specifically, *Thominet* fails to teach or suggest any particular relationship between individual light emitting element shapes and a cut line. Rather, *Thominet* equates a cut line shape with a shade or a light element pattern. *Ueda* fails to provide the missing disclosure from *Thominet*, as it fails to teach or suggest any cut-line (as it is not directed to a headlamp).

Thus, Applicants respectfully submit that independent claim 1 is patentable over the applied references. Further, Applicant respectfully submits that rejected dependent claims 2 and 3 are allowable, *at least* by virtue of their dependency.

*Independent Claim 4*

The Examiner alleges that most of the features recited in independent claim 4 are disclosed in FIG. 3C of *Komoto*, and that it is “clearly understood ... that the light from the semiconductor element, if to use [sic] in a vehicle headlamp, will be generated in a direction corresponding to at least a part of a cut line between bright and dark.”

Thus, Applicants believe that the Examiner is alleging that *Komoto* discloses the recited “active layer,” “light emitting area,” and “groove,” but fails to teach or suggest that the groove extends “on a surface of said semiconductor light emitting element in a direction corresponding to at least a part of a cut line to determine a boundary between bright and dark.” Nevertheless, it appears that the Examiner is alleging that the use of *Komoto* to provide the recited cut line would have been “clearly understood” by one of skill. Applicants disagree.

It has long been held that, “to establish *prima facie* obviousness of the claimed invention, all the claim limitations must be taught or suggested by the prior art.” *In re Royka*,

490 F.2d 981 (CCPA 1974). In this instance, no portion of *Komoto* discloses any cut lines, let alone the use of its LED to form such cut lines. Further (as discussed above), none of the other references applied by the Examiner teach or suggest such a use. Accordingly, Applicants respectfully submit that a prima facie case of obviousness has not been established.

Thus, Applicants respectfully submit that independent claim 4 is patentable over the applied references.

*None Of The Applied References Provide The Benefit Of The Invention*

Additionally, as described in par. 0056 of the instant Application, the claimed configuration can bring about the advantage (in the exemplary embodiment) that lens 104 projects the images of the light emitting areas 114a to 114e, and forms at least a part of the slanting cut line 302 based on the boundary between bright and dark areas of those images. Consequently, the slanting cut line 302 can be properly formed. None of the applied references, *Thominet*, *Ueda* or *Komoto* (either alone or in combination) teach or suggest such an advantage.

In view of all of the above, Applicants respectfully request that the Examiner withdraw this rejection.

*New Claims*

Claims 5-18 are hereby added. Claims 5-18 are fully supported *at least* by the Figures of the instant Application.

Claims 5-10 are dependent (either directly or indirectly) from independent claim 1, and are respectfully submitted to be allowable both by virtue of their dependency, and by virtue of the features recited therein.

Claims 11-14 are dependent from independent claim 4, and are respectfully submitted to be allowable both by virtue of their dependency, and by virtue of the features recited therein.

Claim 15 is an independent claim, recites the features of the invention in language different from independent claim 1, and is respectfully submitted to be allowable by virtue of the features recited therein.

Claim 16 is similar to independent claim 1, but specifies that a plurality of semiconductor light emitting elements with linear light emitting areas are used, and that their linear light emitting areas are arranged in a straight line. *Thominet* only discloses sources in a matrix arrangement, and the secondary references, *Ueda* and *Komoto*, fail to correct this deficiency. Thus, claim 16 is respectfully submitted to be allowable by virtue of the features recited therein.

Claims 17 and 18 are identical to claims 2 and 3, but are dependent from new claim 16. Claims 17 and 18 are respectfully submitted to be allowable both by virtue of their dependency, and by virtue of the features recited therein.

### **Conclusion**

In view of the foregoing, it is respectfully submitted that claims 1-18 are allowable. Thus, it is respectfully submitted that the application now is in condition for allowance with all of the claims 1-18.

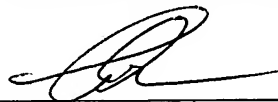
If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Amendment Under 37 C.F.R. § 1.111  
U.S. Appl. No.: 10/814,269

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Please charge any fees which may be required to maintain the pendency of this application, except for the Issue Fee, to our Deposit Account No. 19-4880.

Respectfully submitted,



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